

Amendments to Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. **(currently amended)** A method of automating validation of a manufacturing process, comprising:

defining requirements;

selecting automated devices for manufacturing;

integrating the automated devices in a production line, wherein integrating the automated devices comprises interconnecting the automated devices to a hub-box via communication links, the hub-box operationally controls and facilitates communication between automated devices and validation of the manufacturing process, wherein the validation includes generating an organized set of documents[[,]] defining aspects of the process, in conformance with regulatory standards;

providing at least one generic interface unit communicatively coupled between the hub-box and an automated device, wherein said generic interface unit comprises a plurality of communication links employing different communication protocols;

collecting processing data from the automated devices by the hub-box for analysis;

analyzing the processing data to determine whether the requirements are satisfied; and

validating the manufacturing process if the requirements are satisfied.

2-11. **(cancelled)**

12. **(currently amended)** The method of claim 1 further comprises communicating, by the generic interface unit, with the automated device using a first communication protocol and communicating, by the generic interface unit, with the hub-box using a second communication protocol ~~further comprises providing a generic interface unit for facilitating communication between the hub box and automated modules.~~

13. **(currently amended)** The method of claim 12 wherein said first communication protocol comprises FieldBus, CANbus, Modbus, BITBUS, WorldFIP, Profibus, MAP or a combination thereof ~~providing the generic interface unit comprises providing a generic interface for each automated module.~~

14. **(currently amended)** The method of claim ~~[[13]]~~ 12 wherein said second communication protocol comprises Ethernet, TCP/IP communication protocol or a combination thereof ~~the generic interface includes communication links for each automated device of the automated module.~~

15. **(currently amended)** The method of claim 12 further comprises:
detecting, by the hub-box, the first communication protocol; and
translating, by the hub-box, instructions or information so that the hub-box can
communicate with the automated device ~~wherein the generic interface includes communication links for each automated device of the automated module.~~

16-20. **(cancelled)**

21. **(previously presented)** The method of claim 1 wherein the requirements are user requirements or functional requirements.

22. **(previously presented)** The method of claim 21 wherein the user requirements are facility operating conditions, desired output, quality, process or product specifications.

23. **(previously presented)** The method of claim 21 wherein the functional requirements are power consumption, loading, speed or capacity, environmental operating conditions, system or equipment functionalities, process results or quality parameters.

24. **(previously presented)** The method of claim 1 wherein the documents contain information relating to change history, operating conditions, events, alarm messages, control parameters, process parameters, measurement data or analysis results.

25. **(previously presented)** The method of claim 1 wherein the documents are audit trail reports, electronic records or electronic signatures.

26. **(new)** A method of automatic validation of a manufacturing process, comprising:

defining requirements;

selecting automated devices of a module for manufacturing, wherein the module forms a stage of a production line;

integrating the automated devices in a production line, wherein integrating the automated devices comprises interconnecting the automated devices to a hub-box via communication links, the hub-box operationally controls and facilitates communication between automated devices and validation of the manufacturing process, wherein the validation includes generating an

organized set of documents defining aspects of the process, in conformance with regulatory standards;

providing at least one generic interface unit communicatively coupled between the hub-box and an automated device, wherein said generic interface unit comprises a plurality of communication links employing different communication protocols;

collecting processing data from the automated devices by the hub-box for analysis;

analyzing the processing data to determine whether the requirements are satisfied; and

validating the manufacturing process if the requirements are satisfied.

27. **(new)** The method of claim 26 wherein the automated devices of the module comprises:

an automated manufacturing device;

an automated measuring device; and

an automated storage device for storage of in-process production material.

28. **(new)** The method of claim 26 further comprises communicating, by the generic interface unit, with the automated device using a first communication protocol and communicating, by the generic interface unit, with the hub-box using a second communication protocol.

29. **(new)** The method of claim 28 wherein said first communication protocol comprises FieldBus, CANbus, Modbus, BITBUS, WorldFIP, Profibus, MAP or a combination thereof.

30. **(new)** The method of claim 28 wherein said second communication protocol comprises Ethernet, TCP/IP communication protocol or a combination thereof.

31. **(new)** The method of claim 28 further comprises:

 detecting, by the hub-box, the first communication protocol; and

 translating, by the hub-box, instructions or information so that the hub-box can
communicate with the automated device.
32. **(new)** The method of claim 26 wherein the requirements are user requirements or
functional requirements.
33. **(new)** The method of claim 26 wherein the documents contain information relating to
change history, operating conditions, events, alarm messages, control parameters, process
parameters, measurement data or analysis results.
34. **(new)** The method of claim 26 wherein the documents are audit trail reports, electronic
records or electronic signatures.
35. **(new)** A method of automatic validation of a manufacturing process, comprising:

 defining requirements;

 selecting automated devices of a module, wherein the module forms a stage of a
production line, the automated devices of the module comprises:

 an automated manufacturing device;

 an automated measuring device; and

 an automated storage device for storage of in-process production material;

 integrating the automated devices in a production line, wherein integrating the automated
devices comprises interconnecting the automated devices to a hub-box via communication links,
the hub-box operationally controls and facilitates communication between automated devices

and validation of the manufacturing process, wherein the validation includes generating an organized set of documents defining aspects of the process, in conformance with regulatory standards;

providing at least one generic interface unit communicatively coupled between the hub-box and an automated device, wherein said generic interface unit comprises a plurality of communication links employing different communication protocols;

collecting processing data from the automated devices by the hub-box for analysis;

analyzing the processing data to determine whether the requirements are satisfied; and

validating the manufacturing process if the requirements are satisfied.